| Testing<br>Services | Appendix C for the BlackBerry® Smartphone Model RCL22CW SAR<br>Report |                  |            |       | Page<br>1(14) |
|---------------------|---|------------------|------------|-------|---------------|
| Author Data         | Dates of Test   | Test Report No   | FCC ID:    | IC ID |               |
| Andrew Becker       | June 10 – June 26, 2010   | RTS-2068-1007-18 | L6ARCL20CW | 2503A | -RCL20CW      |

#### APPENDIX C: SAR DISTRIBUTION PLOTS FOR BODY-WORN CONFIGURATION

| Testing<br>Services | Document<br>Appendix C for the BlackBerry® Smartphone Model RCL22CW SAR<br>Report |                  |            |       | Page <b>2(14)</b> |
|---------------------|---|------------------|------------|-------|-------------------|
| Author Data         | Dates of Test   | Test Report No   | FCC ID:    | IC ID |                   |
| Andrew Becker       | June 10 – June 26, 2010   | RTS-2068-1007-18 | L6ARCL20CW | 2503A | -RCL20CW          |

Date/Time: 6/21/2010 6:11:46 PM

Test Laboratory: RIM Testing Services

# Vertical\_Holster\_Back\_CDMA800\_low\_chan\_amb\_temp\_23.3C\_liq\_tem

# p\_22.4C

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 322A2EE0

Communication System: CDMA 800; Frequency: 824.7 MHz;Duty Cycle: 1:1 Medium parameters used: f = 825 MHz;  $\sigma = 0.954$  mho/m;  $\epsilon_r = 56.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 SN3225; ConvF(5.97, 5.97, 5.97); Calibrated: 12/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.660 mW/g

Body/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 25.8 V/m; Power Drift = -0.175 dB Peak SAR (extrapolated) = 0.764 W/kg SAR(1 g) = 0.607 mW/g; SAR(10 g) = 0.447 mW/g Maximum value of SAR (measured) = 0.640 mW/g



0 dB = 0.640 mW/g



Date/Time: 6/21/2010 6:27:24 PM

Test Laboratory: RIM Testing Services

# Horizontal\_Holster\_Back\_CDMA800\_low\_chan\_amb\_temp\_23.0C\_liq\_te

### mp\_22.1C

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 322A2EE0

Communication System: CDMA 800; Frequency: 824.7 MHz;Duty Cycle: 1:1 Medium parameters used: f = 825 MHz;  $\sigma = 0.954$  mho/m;  $\epsilon_r = 56.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 SN3225; ConvF(5.97, 5.97, 5.97); Calibrated: 12/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.798 mW/g

Body/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 28.7 V/m; Power Drift = -0.019 dB Peak SAR (extrapolated) = 0.965 W/kg SAR(1 g) = 0.745 mW/g; SAR(10 g) = 0.547 mW/g Maximum value of SAR (measured) = 0.789 mW/g



0 ub 0.70 m w/g



Date/Time: 6/10/2010 7:21:43 PM

Test Laboratory: RIM Testing Services

# Vertical\_Holster\_Back\_CDMA1900\_mid\_chan\_amb\_temp\_22.9C\_liq\_te

mp\_22.1C

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 322A2EE0

Communication System: CDMA 1900; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.57 mho/m;  $\epsilon_r$  = 52.7;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 SN3225; ConvF(4.9, 4.9, 4.9); Calibrated: 12/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.604 mW/g

Body/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 4.80 V/m; Power Drift = 0.470 dB Peak SAR (extrapolated) = 0.832 W/kg SAR(1 g) = 0.548 mW/g; SAR(10 g) = 0.324 mW/g Maximum value of SAR (measured) = 0.601 mW/g





Date/Time: 6/10/2010 7:52:57 PM

Test Laboratory: RIM Testing Services

# Horizontal\_Holster\_Back\_CDMA1900\_mid\_chan\_amb\_temp\_22.7C\_liq\_t emp\_21.9C

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 322A2EE0

Communication System: CDMA 1900; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.57 mho/m;  $\epsilon_r$  = 52.7;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 SN3225; ConvF(4.9, 4.9, 4.9); Calibrated: 12/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.672 mW/g

Body/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 8.62 V/m; Power Drift = -0.139 dB Peak SAR (extrapolated) = 0.911 W/kg SAR(1 g) = 0.596 mW/g; SAR(10 g) = 0.355 mW/g Maximum value of SAR (measured) = 0.656 mW/g



-12.5

-15.6

0 dB = 0.656 mW/g



Page

Andrew Becker

 Dates of Test
 Test Report No
 FCC ID:
 IC ID

 June 10 – June 26, 2010
 RTS-2068-1007-18
 L6ARCL20CW
 2503A-RCL20CW

Date/Time: 6/17/2010 9:45:42 PM

Test Laboratory: RIM Testing Services File Name: <u>Vertical\_Holster\_Back\_802.11b\_mid\_chan\_amb\_temp\_22.5C\_liq\_temp\_21.8C.da4</u>

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 322A2EE0 Program Name: Compliance Testing: (Body worn)

Communication System: 802.11 b (2450); Frequency: 2437 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2437 MHz;  $\sigma = 2.02$  mho/m;  $\epsilon_r = 50.9$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 SN3225; ConvF(4.32, 4.32, 4.32); Calibrated: 12/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

## Body/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.115 mW/g

Body/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm Reference Value = 6.49 V/m; Power Drift = 0.021 dB Peak SAR (extrapolated) = 0.189 W/kg SAR(1 g) = 0.103 mW/g; SAR(10 g) = 0.056 mW/g

Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.111 mW/g





Document

Page

Andrew Becker

 Dates of Test
 Test Report No
 FCC ID:
 IC ID

 June 10 – June 26, 2010
 RTS-2068-1007-18
 FCC ID:
 IC ID

Date/Time: 6/17/2010 10:16:16 PM

Test Laboratory: RIM Testing Services File Name: <u>Horizontal\_Holster\_Back\_802.11b\_mid\_chan\_amb\_temp\_22.4C\_liq\_temp\_21.7C.da4</u>

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 322A2EE0 Program Name: Compliance Testing: (Body worn)

Communication System: 802.11 b (2450); Frequency: 2437 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2437 MHz;  $\sigma = 2.02$  mho/m;  $\epsilon_r = 50.9$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 SN3225; ConvF(4.32, 4.32, 4.32); Calibrated: 12/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

## Body/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.229 mW/g

Body/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm Reference Value = 6.91 V/m; Power Drift = 0.026 dB Peak SAR (extrapolated) = 0.381 W/kg SAR(1 g) = 0.209 mW/g; SAR(10 g) = 0.112 mW/g

Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.228 mW/g



| Testing<br>Services <sup>**</sup> | Appendix C for the BlackBerry® Smartphone Model RCL22CW SAR<br>Report |                  |            |       | Page<br><b>14(14)</b> |
|-----------------------------------|---|------------------|------------|-------|-----------------------|
| Author Data                       | Dates of Test   | Test Report No   | FCC ID:    | IC ID |                       |
| Andrew Becker                     | June 10 – June 26, 2010   | RTS-2068-1007-18 | L6ARCL20CW | 2503A | -RCL20CW              |

#### Z axis plots for the worst case body worn configuration:



This report shall <u>NOT</u> be reproduced except in full without the written consent of RIM Testing Services Copyright 2005-2010, RIM Testing Services, a division of Research In Motion Limited